

Attorney's Docket No.: 06618-914001

Remarks

Reconsideration and allowance of the above referenced application are respectfully requested.

Figures 1 and 2 have been designated as prior art to obviate the rejections.

A "brief description of the drawings" has been added to the specification.

The informalities noted in sections 17 and 27 have been corrected.

The abstract has also been corrected as requested by the official action.

Claims 1, 5-8 and 10-20 are canceled and new claims 21 and 22 are substituted therefor. New claim 21 corresponds to a combination of many of the elements of claims 1 and 5-8.

This rewriting obviates the rejections under section 102 as being unpatentable over Ishimaru or Welch.

Claims 5, 7, 8, 10, 11, and 18-20 stand rejected based on Welch in view of Lamont. The rejection combines the basic Welch structure with the Lamont teaching of the extending projection. Claim 21 recites that the anodes are surrounded on all sides by the cathode. The extending surfaces also extend into the anode structures. In this way, the anodes are biased both from the surrounding cathode and from the internal surfaces.

Welch teaches a basic system where the cathode plates are

Attorney's Docket No.:06618-914001

located around the anodes 12. Lamont teaches a system for a getter ion vacuum pump. Lamont teaches that the posts such as 6 are used to define interaction regions at the ends of the passageways. This is done to "sputter away" getter material from the ends of the posts. See generally, column 3 lines 60-75. The sputter material is collected in a ring.

First of all, the specific mechanism described by Lamont for pumping is different than the mechanism of Welch. Welch teaches a sputter ion pump, while Lamont teaches a getter ion pump. Sputtering and gettering are two very different processes, and one having ordinary skill in the art would not receive any guidance that the teachings of Lamont would be necessarily useful within the basic structure of Welch. Making the combination, in fact, would require experimentation. For these reasons, one having ordinary skill in the art would not be expected to make this hypothetical combination.

Moreover, one of the purposes for the posts in Lamont is for the ions to bombard the posts with "glancing angles of incidence" See column 3 lines 69-70. This is only really applicable, however, when the cathode surface 5 is substantially perpendicular to the axis of the post 6. In contrast, claim 21 defines that the housing and cathode structure surrounds the anodes, and therefore that the cathodes are not only at perpendicular directions, but are also parallel. That is, some

Attorney's Docket No.: 06618-914001

portions of the cathode are parallel to the posts. Lamont teaches nothing about using such a post in such a geometric configuration, and therefore with all due respect, it is respectfully suggested that the teachings of Lamont would not be applicable to this system.

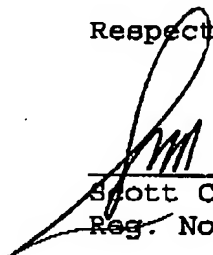
The remaining dependent claims should be allowable for similar reasons to those discussed above with respect to the respective independent claims.

In view of the above amendments and remarks, therefore, all of the claims should be in condition for allowance. A formal notice to that effect is respectfully solicited.

Applicant asks that all claims be allowed. Applicant believes no fee is due at this time. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: 5/6/05



Scott C. Harris
Reg. No. 32,030

Fish & Richardson P.C.
PTO Customer Number: 20985
12390 El Camino Real
San Diego, CA 92130
Telephone: (858) 678-5070
Facsimile: (858) 678-5099
10512484.doc